

PROTECTIVE LAYER FOR CORROSION PREVENTION DURING LITHOGRAPHY AND ETCH

Abstract of the Disclosure

Forming a protective layer such as chromium, chrome alloys, nickel or cobalt as a cap over an aluminum film protects an underlying ITO layer from corrosion during the fabrication of flat panel displays such as field emission devices and the like. The presence of the protective layer during fabrication processes such as photolithography prevents diffusion of solutions through the aluminum into the ITO. This protective layer is especially effective during the development and resist stripping stages of photolithography which use solutions or solvents that would otherwise cause reductive corrosion of ITO in contact with aluminum. The methods and apparatus described herein are particularly advantageous for the fabrication of flat panel displays such as field emission devices and other display devices, because ITO is often used in such devices in contact with aluminum while exposed to corrosion-inducing media.

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